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**AMENDMENT OF THE CLAIMS**

1-9. (Cancelled)

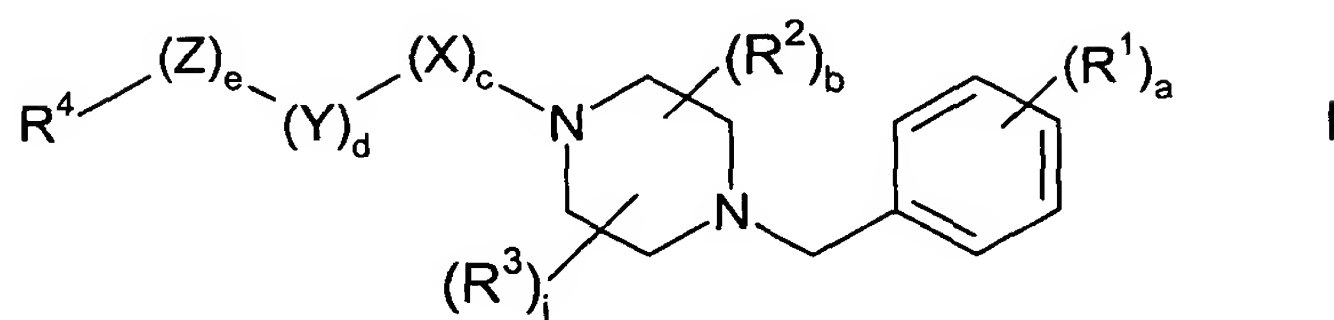
10. (Currently Amended) A pharmaceutical composition for treating or preventing a disorder or condition selected from autoimmune diseases, rheumatoid arthritis, type I diabetes  
10 (recent onset), lupus, inflammatory bowel disease, optic neuritis, psoriasis, multiple sclerosis, polymyalgia rheumatica, uveitis, and vasculitis, acute and chronic inflammatory conditions osteoarthritis, adult Respiratory Distress Syndrome, Respiratory Distress Syndrome of infancy, ischemia reperfusion injury, glomerulonephritis, and chronic obstructive pulmonary disease (COPD) allergic conditions, asthma and atopic dermatitis, inflammation associated  
15 with infection, viral inflammation, influenza, hepatitis and Guillian-Barre, chronic bronchitis, chronic or acute tissue, cell, and solid organ transplant rejection, xeno-transplantation, atherosclerosis, restenosis, HIV infectivity (co-receptor usage), and granulomatous diseases, sarcoidosis, leprosy and tuberculosis, and sequelae associated with cancers, multiple myelomax; limiting the production of cytokines and/or TNF at inflammatory sites, as a  
20 consequence of decreasing cell infiltration; for treating diseases and/or congestive heart failure, linked to TNF and IL-1 and for treating pulmonary emphysema or dyspnea associated therewith, emphysema; HIV-1, HIV-2, HIV-3; cytomegalovirus (CMV), adenoviruses, Herpes viruses (*Herpes zoster* and *Herpes simplex*), for treating sequelae associated with infection where such infection induces production of detrimental inflammatory cytokines  
25 and/or TNF, fungal meningitis, joint tissue damage, hyperplasia, pannus formation and bone resorption, psoriatic arthritis, hepatic failure, bacterial meningitis, Kawasaki syndrome, myocardial infarction, acute liver failure, lyme disease, septic shock, cancer, trauma, and malaria, in a mammal, comprising an amount of a compound according to claim 4-20 or 21, or a pharmaceutically acceptable salt thereof, that is effective in treating or preventing such  
30 disorder or condition and a pharmaceutically acceptable carrier.

11. (Currently Amended) A pharmaceutical composition for treating or preventing a disorder or condition that can be treated or prevented by inhibiting chemokine binding to the receptor CCR1 in a mammal, comprising an amount of a compound according to claim 4-20 or  
35 21, or a pharmaceutically acceptable salt thereof, effective in treating or preventing such disorder or condition and a pharmaceutically acceptable carrier.

12-19. (Cancelled)

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20. (New) A compound of the formula



or the pharmaceutically acceptable salt thereof; wherein

$R^1$  is hydrogen, halo, cyano, nitro, trifluoromethyl, trifluoromethoxy, (C<sub>1</sub>-C<sub>6</sub>)alkyl, hydroxy or (C<sub>1</sub>-C<sub>6</sub>)alkylcarbonyloxy;

$R^2$  and  $R^3$  are each independently selected from (C<sub>1</sub>-C<sub>6</sub>)alkyl, (C<sub>3</sub>-C<sub>8</sub>)cycloalkyl, amino(C<sub>1</sub>-C<sub>6</sub>)alkyl, amino(C<sub>3</sub>-C<sub>8</sub>)cycloalkyl, (C<sub>1</sub>-C<sub>6</sub>)alkylamino(C<sub>1</sub>-C<sub>6</sub>)alkyl, (C<sub>1</sub>-C<sub>6</sub>)alkylamino(C<sub>3</sub>-C<sub>8</sub>)cycloalkyl, hydroxy(C<sub>1</sub>-C<sub>6</sub>)alkyl, (C<sub>1</sub>-C<sub>6</sub>)alkoxycarbonylamino(C<sub>1</sub>-C<sub>6</sub>)alkyl, ureido(C<sub>1</sub>-C<sub>6</sub>)alkyl, (C<sub>1</sub>-C<sub>6</sub>)alkyureido(C<sub>1</sub>-C<sub>6</sub>)alkyl, (C<sub>2</sub>-C<sub>9</sub>)heteroaryl(C<sub>1</sub>-C<sub>6</sub>)alkyl or (C<sub>2</sub>-C<sub>9</sub>)heterocycloalkyl(C<sub>1</sub>-C<sub>6</sub>)alkyl;

$R^4$  is (R<sup>5</sup>)<sub>f</sub>(R<sup>6</sup>)<sub>g</sub>(C<sub>6</sub>-C<sub>10</sub>)aryl or (R<sup>5</sup>)<sub>f</sub>(R<sup>7</sup>)<sub>h</sub>(C<sub>2</sub>-C<sub>9</sub>)heteroaryl wherein f, g and h are independently 1 or 2;

$R^5$  is (C<sub>2</sub>-C<sub>9</sub>)heterocycloalkylcarbonyl, (C<sub>2</sub>-C<sub>9</sub>)heteroarylcarbonyl, (C<sub>2</sub>-C<sub>9</sub>)heteroaryl(C<sub>1</sub>-C<sub>6</sub>)alkylaminocarbonyl, (C<sub>2</sub>-C<sub>9</sub>)heterocycloalkyl(C<sub>1</sub>-C<sub>6</sub>)alkylaminocarbonyl, (C<sub>1</sub>-C<sub>6</sub>)alkylsulfonylamino(C<sub>1</sub>-C<sub>6</sub>)alkylaminocarbonyl, ureido(C<sub>1</sub>-C<sub>6</sub>)alkylaminocarbonyl, (C<sub>1</sub>-C<sub>6</sub>)alkylureido(C<sub>1</sub>-C<sub>6</sub>)alkylaminocarbonyl, ((C<sub>1</sub>-C<sub>6</sub>)alkyl)<sub>2</sub>ureido(C<sub>1</sub>-C<sub>6</sub>)alkylaminocarbonyl, aminosulfonyl(C<sub>1</sub>-C<sub>6</sub>)alkylaminocarbonyl, (C<sub>1</sub>-C<sub>6</sub>)alkylaminosulfonyl(C<sub>1</sub>-C<sub>6</sub>)alkylaminocarbonyl, (C<sub>1</sub>-C<sub>6</sub>)alkylsulfonylamino(C<sub>1</sub>-C<sub>6</sub>)alkylcarbonylamino, cyanoguanidino(C<sub>1</sub>-C<sub>6</sub>)alkylcarbonylamino, (C<sub>1</sub>-C<sub>6</sub>)alkylcyanoguanidino(C<sub>1</sub>-C<sub>6</sub>)alkylcarbonylamino, ((C<sub>1</sub>-C<sub>6</sub>)alkyl)<sub>2</sub>cyanoguanidino(C<sub>1</sub>-C<sub>6</sub>)alkylcarbonylamino, aminocarbonyl(C<sub>1</sub>-C<sub>6</sub>)alkylcarbonylamino, (C<sub>2</sub>-C<sub>9</sub>)heteroaryl(C<sub>1</sub>-C<sub>6</sub>)alkylcarbonylamino, (C<sub>2</sub>-C<sub>9</sub>)heterocycloalkyl(C<sub>1</sub>-C<sub>6</sub>)alkylcarbonylamino, aminosulfonyl(C<sub>1</sub>-C<sub>6</sub>)alkylcarbonylamino, amino(C<sub>1</sub>-C<sub>6</sub>)alkylureido, (C<sub>1</sub>-C<sub>6</sub>)alkylamino(C<sub>1</sub>-C<sub>6</sub>)alkylureido, ((C<sub>1</sub>-C<sub>6</sub>)alkyl)<sub>2</sub>amino(C<sub>1</sub>-C<sub>6</sub>)alkylureido, (C<sub>2</sub>-C<sub>9</sub>)heterocycloalkyl(C<sub>1</sub>-C<sub>6</sub>)alkylureido, (C<sub>2</sub>-C<sub>9</sub>)heteroaryl(C<sub>1</sub>-C<sub>6</sub>)alkylureido, aminosulfonyl(C<sub>1</sub>-C<sub>6</sub>)alkylureido, aminocarbonyl(C<sub>1</sub>-C<sub>6</sub>)alkylureido, (C<sub>1</sub>-C<sub>6</sub>)alkylaminocarbonyl(C<sub>1</sub>-C<sub>6</sub>)alkylureido, ((C<sub>1</sub>-C<sub>6</sub>)alkyl)<sub>2</sub>aminocarbonyl(C<sub>1</sub>-C<sub>6</sub>)alkylureido, acetylamino(C<sub>1</sub>-C<sub>6</sub>)alkylureido, (acetyl)((C<sub>1</sub>-C<sub>6</sub>)alkyl)amino(C<sub>1</sub>-C<sub>6</sub>)alkylureido, amino(C<sub>1</sub>-C<sub>6</sub>)alkylsulfonylamino, (C<sub>1</sub>-C<sub>6</sub>)alkylamino(C<sub>1</sub>-C<sub>6</sub>)alkylsulfonylamino, ((C<sub>1</sub>-C<sub>6</sub>)alkyl)<sub>2</sub>amino(C<sub>1</sub>-C<sub>6</sub>)alkylsulfonylamino, acetylamino(C<sub>1</sub>-

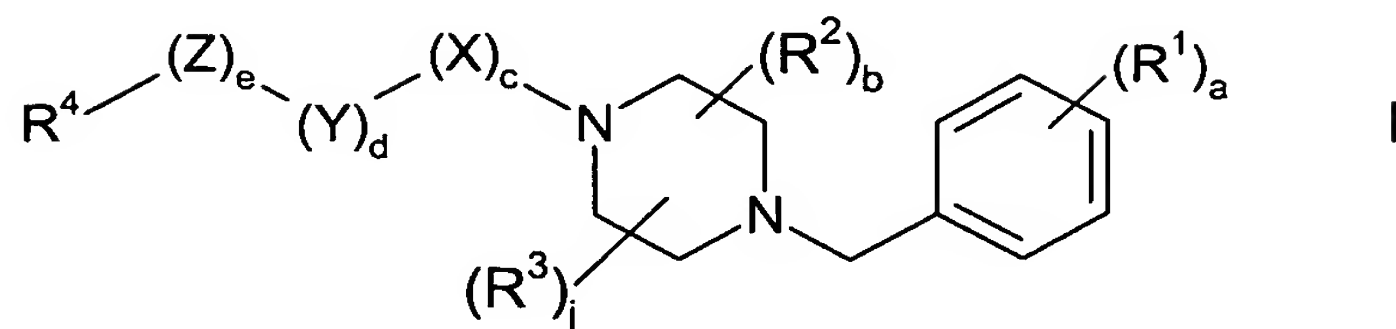
5 C<sub>6</sub>)alkylsulfonylamino, (acetyl)((C<sub>1</sub>-C<sub>6</sub>)alkyl)amino(C<sub>1</sub>-C<sub>6</sub>)alkylsulfonylamino, ureido(C<sub>1</sub>-  
C<sub>6</sub>)alkylsulfonylamino, (C<sub>1</sub>-C<sub>6</sub>)alkylureido(C<sub>1</sub>-C<sub>6</sub>)alkylsulfonylamino, ((C<sub>1</sub>-  
C<sub>6</sub>)alkyl)<sub>2</sub>ureido(C<sub>1</sub>-C<sub>6</sub>)alkylsulfonylamino, (C<sub>1</sub>-C<sub>6</sub>)alkylsulfonylamino(C<sub>1</sub>-  
C<sub>6</sub>)alkylsulfonylamino, cyanoguanidino(C<sub>1</sub>-C<sub>6</sub>)alkylsulfonylamino, (C<sub>1</sub>-  
C<sub>6</sub>)alkylcyanoguanidino(C<sub>1</sub>-C<sub>6</sub>)alkylsulfonylamino, ((C<sub>1</sub>-C<sub>6</sub>)alkyl)<sub>2</sub>cyanoguanidino(C<sub>1</sub>-  
10 C<sub>6</sub>)alkylsulfonylamino, aminocarbonyl(C<sub>1</sub>-C<sub>6</sub>)alkylsulfonylamino, (C<sub>1</sub>-  
C<sub>6</sub>)alkoxycarbonylamino(C<sub>1</sub>-C<sub>6</sub>)alkylsulfonylamino, aminosulfonylamino, (C<sub>1</sub>-  
C<sub>6</sub>)alkylaminosulfonylamino, ((C<sub>1</sub>-C<sub>6</sub>)alkyl)<sub>2</sub>aminosulfonylamino, aminocarbonyl(C<sub>1</sub>-  
C<sub>6</sub>)alkylamino(C<sub>1</sub>-C<sub>6</sub>)alkylsulfonylamino, (C<sub>2</sub>-C<sub>9</sub>)heterocycloalkyloxycarbonylamino(C<sub>1</sub>-  
C<sub>6</sub>)alkylsulfonylamino, (C<sub>2</sub>-C<sub>9</sub>)heteroaryloxycarbonylamino(C<sub>1</sub>-C<sub>6</sub>)alkylsulfonylamino,  
15 cyanoguanidino, (C<sub>1</sub>-C<sub>6</sub>)alkylcyanoguanidino, ((C<sub>1</sub>-C<sub>6</sub>)alkyl)<sub>2</sub>cyanoguanidino, (C<sub>2</sub>-  
C<sub>9</sub>)heterocycloalkylcyanoguanidino, (C<sub>2</sub>-C<sub>9</sub>)heteroarylcyanoguanidino, (C<sub>2</sub>-  
C<sub>9</sub>)heterocycloalkyl(C<sub>1</sub>-C<sub>6</sub>)alkylcyanoguanidino, (C<sub>2</sub>-C<sub>9</sub>)heteroaryl(C<sub>1</sub>-  
C<sub>6</sub>)alkylcyanoguanidino, amino(C<sub>1</sub>-C<sub>6</sub>)alkylcyanoguanidino, (C<sub>1</sub>-C<sub>6</sub>)alkylamino(C<sub>1</sub>-  
C<sub>6</sub>)alkylcyanoguanidino, ((C<sub>1</sub>-C<sub>6</sub>)alkyl)<sub>2</sub>amino(C<sub>1</sub>-C<sub>6</sub>)alkylcyanoguanidino,  
20 aminocarbonyl(C<sub>1</sub>-C<sub>6</sub>)alkylcyanoguanidino, (C<sub>1</sub>-C<sub>6</sub>)alkylaminocarbonyl(C<sub>1</sub>-  
C<sub>6</sub>)alkylcyanoguanidino, ((C<sub>1</sub>-C<sub>6</sub>)alkyl)<sub>2</sub>aminocarbonyl(C<sub>1</sub>-C<sub>6</sub>)alkylcyanoguanidino,  
aminocarbonyl(C<sub>1</sub>-C<sub>6</sub>)alkylamino, (C<sub>1</sub>-C<sub>6</sub>)alkylsulfonylamino(C<sub>1</sub>-C<sub>6</sub>)alkylamino, (C<sub>1</sub>-  
C<sub>6</sub>)alkoxycarbonylamino(C<sub>1</sub>-C<sub>6</sub>)alkylamino, aminosulfonyl(C<sub>1</sub>-C<sub>6</sub>)alkylamino, (C<sub>2</sub>-  
C<sub>9</sub>)heteroaryl(C<sub>1</sub>-C<sub>6</sub>)alkylamino, acetylamino(C<sub>1</sub>-C<sub>6</sub>)alkylamino, (acetyl)((C<sub>1</sub>-  
25 C<sub>6</sub>)alkyl)amino(C<sub>1</sub>-C<sub>6</sub>)alkylamino, cyano(C<sub>1</sub>-C<sub>6</sub>)alkylaminoalkyl, aminocarbonyl(C<sub>1</sub>-  
C<sub>6</sub>)alkylamino(C<sub>1</sub>-C<sub>6</sub>)alkyl, acetylamino(C<sub>1</sub>-C<sub>6</sub>)alkylamino(C<sub>1</sub>-C<sub>6</sub>)alkyl, (acetyl)((C<sub>1</sub>-  
C<sub>6</sub>)alkyl)amino(C<sub>1</sub>-C<sub>6</sub>)alkylamino(C<sub>1</sub>-C<sub>6</sub>)alkyl, (C<sub>1</sub>-C<sub>6</sub>)alkoxycarbonylamino(C<sub>1</sub>-  
C<sub>6</sub>)alkylamino(C<sub>1</sub>-C<sub>6</sub>)alkyl, (C<sub>2</sub>-C<sub>9</sub>)heterocycloalkyloxycarbonylamino(C<sub>1</sub>-  
C<sub>6</sub>)alkylamino(C<sub>1</sub>-C<sub>6</sub>)alkyl, (C<sub>2</sub>-C<sub>9</sub>)heteroaryloxycarbonylamino(C<sub>1</sub>-C<sub>6</sub>)alkylamino(C<sub>1</sub>-  
30 C<sub>6</sub>)alkyl, cyanoguanidino(C<sub>1</sub>-C<sub>6</sub>)alkylamino(C<sub>1</sub>-C<sub>6</sub>)alkyl, (C<sub>1</sub>-C<sub>6</sub>)alkylcyanoguanidino(C<sub>1</sub>-  
C<sub>6</sub>)alkylamino(C<sub>1</sub>-C<sub>6</sub>)alkyl, ((C<sub>1</sub>-C<sub>6</sub>)alkyl)<sub>2</sub>cyanoguanidino(C<sub>1</sub>-C<sub>6</sub>)alkylamino(C<sub>1</sub>-C<sub>6</sub>)alkyl,  
(C<sub>1</sub>-C<sub>6</sub>)alkylsulfonylamino(C<sub>1</sub>-C<sub>6</sub>)alkylamino(C<sub>1</sub>-C<sub>6</sub>)alkyl, ureido(C<sub>1</sub>-C<sub>6</sub>)alkylamino(C<sub>1</sub>-  
C<sub>6</sub>)alkyl, (C<sub>1</sub>-C<sub>6</sub>)alkylureido(C<sub>1</sub>-C<sub>6</sub>)alkylamino(C<sub>1</sub>-C<sub>6</sub>)alkyl, ((C<sub>1</sub>-C<sub>6</sub>)alkyl)<sub>2</sub>ureido(C<sub>1</sub>-  
C<sub>6</sub>)alkylamino(C<sub>1</sub>-C<sub>6</sub>)alkyl, aminocarbonyloxy(C<sub>1</sub>-C<sub>6</sub>)alkylamino(C<sub>1</sub>-C<sub>6</sub>)alkyl,  
35 acetylamino(C<sub>1</sub>-C<sub>6</sub>)alkylcarbonylamino(C<sub>1</sub>-C<sub>6</sub>)alkyl, (acetyl)((C<sub>1</sub>-C<sub>6</sub>)alkyl)amino(C<sub>1</sub>-  
C<sub>6</sub>)alkylcarbonylamino(C<sub>1</sub>-C<sub>6</sub>)alkyl, aminocarbonyl(C<sub>1</sub>-C<sub>6</sub>)alkylcarbonylamino(C<sub>1</sub>-C<sub>6</sub>)alkyl,  
(C<sub>1</sub>-C<sub>6</sub>)alkylaminocarbonyl(C<sub>1</sub>-C<sub>6</sub>)alkylcarbonylamino(C<sub>1</sub>-C<sub>6</sub>)alkyl, ((C<sub>1</sub>-

5 C<sub>6</sub>)alkyl)<sub>2</sub>aminocarbonyl(C<sub>1</sub>-C<sub>6</sub>)alkylcarbonylamino(C<sub>1</sub>-C<sub>6</sub>)alkyl, aminosulfonyl(C<sub>1</sub>-  
C<sub>6</sub>)alkylcarbonylamino(C<sub>1</sub>-C<sub>6</sub>)alkyl, (C<sub>2</sub>-C<sub>9</sub>)heterocycloalkyloxycarbonylamino(C<sub>1</sub>-C<sub>6</sub>)alkyl,  
cyanoguanidino(C<sub>1</sub>-C<sub>6</sub>)alkylcarbonylamino(C<sub>1</sub>-C<sub>6</sub>)alkyl, cyano(C<sub>1</sub>-  
C<sub>6</sub>)alkylcarbonylamino(C<sub>1</sub>-C<sub>6</sub>)alkyl, wherein R<sup>5</sup> is amino(C<sub>1</sub>-  
C<sub>6</sub>)alkylaminocarbonylamino(C<sub>1</sub>-C<sub>6</sub>)alkyl, (C<sub>1</sub>-C<sub>6</sub>)alkylamino(C<sub>1</sub>-C<sub>6</sub>)alkylaminocarbonyl  
10 amino(C<sub>1</sub>-C<sub>6</sub>)alkyl, ((C<sub>1</sub>-C<sub>6</sub>)alkyl)<sub>2</sub>amino(C<sub>1</sub>-C<sub>6</sub>)alkylaminocarbonylamino(C<sub>1</sub>-C<sub>6</sub>)alkyl,  
aminocarbonyl(C<sub>1</sub>-C<sub>6</sub>)alkylaminocarbonylamino(C<sub>1</sub>-C<sub>6</sub>)alkyl, (C<sub>1</sub>-C<sub>6</sub>)  
alkylcarbonylamino(C<sub>1</sub>-C<sub>6</sub>)alkylaminocarbonylamino(C<sub>1</sub>-C<sub>6</sub>)alkyl, (C<sub>1</sub>-  
C<sub>6</sub>)alkylsulfonylamino(C<sub>1</sub>-C<sub>6</sub>)alkylaminocarbonylamino(C<sub>1</sub>-C<sub>6</sub>)alkyl, (C<sub>1</sub>-C<sub>6</sub>)alkoxycarbonyl  
amino(C<sub>1</sub>-C<sub>6</sub>)alkylaminocarbonylamino(C<sub>1</sub>-C<sub>6</sub>)alkyl, (C<sub>2</sub>-C<sub>9</sub>)heterocycloalkyloxycarbonyl  
15 amino(C<sub>1</sub>-C<sub>6</sub>)alkylaminocarbonylamino(C<sub>1</sub>-C<sub>6</sub>)alkyl, (C<sub>2</sub>-  
C<sub>9</sub>)heteroaryloxycarbonylamino(C<sub>1</sub>-C<sub>6</sub>)alkylaminocarbonylamino(C<sub>1</sub>-C<sub>6</sub>)alkyl, (C<sub>2</sub>-  
C<sub>9</sub>)heterocycloalkyl(C<sub>1</sub>-C<sub>6</sub>)alkylaminocarbonyl amino(C<sub>1</sub>-C<sub>6</sub>)alkyl, (C<sub>2</sub>-C<sub>9</sub>)heteroaryl(C<sub>1</sub>-  
C<sub>6</sub>)alkylaminocarbonylamino(C<sub>1</sub>-C<sub>6</sub>)alkyl, ureido(C<sub>1</sub>-C<sub>6</sub>)alkylureido(C<sub>1</sub>-C<sub>6</sub>)alkyl, (C<sub>1</sub>-  
C<sub>6</sub>)alkylureido(C<sub>1</sub>-C<sub>6</sub>)alkylureido(C<sub>1</sub>-C<sub>6</sub>)alkyl, ((C<sub>1</sub>-C<sub>6</sub>)alkyl)<sub>2</sub>ureido(C<sub>1</sub>-C<sub>6</sub>)alkylureido(C<sub>1</sub>-  
20 C<sub>6</sub>)alkyl or cyanoguanidino(C<sub>1</sub>-C<sub>6</sub>)alkylureido(C<sub>1</sub>-C<sub>6</sub>)alkyl, amino(C<sub>1</sub>-  
C<sub>6</sub>)alkylsulfonylamino(C<sub>1</sub>-C<sub>6</sub>)alkyl, (C<sub>1</sub>-C<sub>6</sub>)alkylamino(C<sub>1</sub>-C<sub>6</sub>)alkylsulfonylamino(C<sub>1</sub>-  
C<sub>6</sub>)alkyl, ((C<sub>1</sub>-C<sub>6</sub>)alkyl)<sub>2</sub>amino(C<sub>1</sub>-C<sub>6</sub>)alkylsulfonylamino(C<sub>1</sub>-C<sub>6</sub>)alkyl, acetylamino(C<sub>1</sub>-  
C<sub>6</sub>)alkylsulfonylamino(C<sub>1</sub>-C<sub>6</sub>)alkyl, (acetyl)((C<sub>1</sub>-C<sub>6</sub>)alkyl)amino(C<sub>1</sub>-  
C<sub>6</sub>)alkylsulfonylamino(C<sub>1</sub>-C<sub>6</sub>)alkyl, ureido(C<sub>1</sub>-C<sub>6</sub>)alkylsulfonylamino(C<sub>1</sub>-C<sub>6</sub>)alkyl, (C<sub>1</sub>-  
25 C<sub>6</sub>)alkylureido(C<sub>1</sub>-C<sub>6</sub>)alkylsulfonylamino(C<sub>1</sub>-C<sub>6</sub>)alkyl, ((C<sub>1</sub>-C<sub>6</sub>)alkyl)<sub>2</sub>ureido(C<sub>1</sub>-  
C<sub>6</sub>)alkylsulfonylamino(C<sub>1</sub>-C<sub>6</sub>)alkyl, (C<sub>1</sub>-C<sub>6</sub>)alkylsulfonylamino(C<sub>1</sub>-  
C<sub>6</sub>)alkylsulfonylamino(C<sub>1</sub>-C<sub>6</sub>)alkyl, cyanoguanidino(C<sub>1</sub>-C<sub>6</sub>)alkylsulfonylamino(C<sub>1</sub>-C<sub>6</sub>)alkyl,  
(C<sub>1</sub>-C<sub>6</sub>)alkyl(cyanoguanidino)(C<sub>1</sub>-C<sub>6</sub>)alkylsulfonylamino(C<sub>1</sub>-C<sub>6</sub>)alkyl, ((C<sub>1</sub>-  
C<sub>6</sub>)alkyl)<sub>2</sub>(cyanoguanidino)(C<sub>1</sub>-C<sub>6</sub>)alkylsulfonylamino(C<sub>1</sub>-C<sub>6</sub>)alkyl, aminocarbonyl(C<sub>1</sub>-  
30 C<sub>6</sub>)alkylsulfonylamino(C<sub>1</sub>-C<sub>6</sub>)alkyl, (C<sub>1</sub>-C<sub>6</sub>)alkoxycarbonylamino(C<sub>1</sub>-  
C<sub>6</sub>)alkylsulfonylamino(C<sub>1</sub>-C<sub>6</sub>)alkyl, (C<sub>2</sub>-C<sub>9</sub>)heterocycloalkyloxycarbonylamino(C<sub>1</sub>-  
C<sub>6</sub>)alkylsulfonylamino(C<sub>1</sub>-C<sub>6</sub>)alkyl, (C<sub>2</sub>-C<sub>9</sub>)heteroaryloxycarbonylamino(C<sub>1</sub>-  
C<sub>6</sub>)alkylsulfonylamino(C<sub>1</sub>-C<sub>6</sub>)alkyl, aminosulfonylamino(C<sub>1</sub>-C<sub>6</sub>)alkyl, (C<sub>1</sub>-  
C<sub>6</sub>)alkylaminosulfonylamino(C<sub>1</sub>-C<sub>6</sub>)alkyl, ((C<sub>1</sub>-C<sub>6</sub>)alkyl)<sub>2</sub>aminosulfonylamino(C<sub>1</sub>-C<sub>6</sub>)alkyl,  
35 cyanoguanidino(C<sub>1</sub>-C<sub>6</sub>)alkyl, (C<sub>1</sub>-C<sub>6</sub>)alkyl(cyanoguanidino)(C<sub>1</sub>-C<sub>6</sub>)alkyl, ((C<sub>1</sub>-  
C<sub>6</sub>)alkyl)<sub>2</sub>(cyanoguanidino)(C<sub>1</sub>-C<sub>6</sub>)alkyl, (C<sub>2</sub>-C<sub>9</sub>)heterocycloalkyl(cyanoguanidino)(C<sub>1</sub>-  
C<sub>6</sub>)alkyl, (C<sub>2</sub>-C<sub>9</sub>)heteroaryl(cyanoguanidino)(C<sub>1</sub>-C<sub>6</sub>)alkyl, (C<sub>2</sub>-C<sub>9</sub>)heterocycloalkyl(C<sub>1</sub>-

- 5 C<sub>6</sub>)alkyl(cyanoguanidino)(C<sub>1</sub>-C<sub>6</sub>)alkyl, (C<sub>2</sub>-C<sub>9</sub>)heteroaryl(C<sub>1</sub>-C<sub>6</sub>)alkyl(cyanoguanidino)(C<sub>1</sub>-C<sub>6</sub>)alkyl, amino(C<sub>1</sub>-C<sub>6</sub>)alkyl(cyanoguanidino)(C<sub>1</sub>-C<sub>6</sub>)alkyl, (C<sub>1</sub>-C<sub>6</sub>)alkylamino(C<sub>1</sub>-C<sub>6</sub>)alkyl(cyanoguanidino)(C<sub>1</sub>-C<sub>6</sub>)alkyl, ((C<sub>1</sub>-C<sub>6</sub>)alkyl)<sub>2</sub>amino(C<sub>1</sub>-C<sub>6</sub>)alkyl(cyanoguanidino)(C<sub>1</sub>-C<sub>6</sub>)alkyl, aminocarbonyl(C<sub>1</sub>-C<sub>6</sub>)alkyl(cyanoguanidino)(C<sub>1</sub>-C<sub>6</sub>)alkyl, (C<sub>1</sub>-C<sub>6</sub>)alkylaminocarbonyl(C<sub>1</sub>-C<sub>6</sub>)alkyl(cyanoguanidino)(C<sub>1</sub>-C<sub>6</sub>)alkyl, ((C<sub>1</sub>-C<sub>6</sub>)alkyl)<sub>2</sub>aminocarbonyl(C<sub>1</sub>-C<sub>6</sub>)alkyl(cyanoguanidino)(C<sub>1</sub>-C<sub>6</sub>)alkyl, wherein R<sup>5</sup> is (C<sub>2</sub>-C<sub>9</sub>)heterocycloalkylsulfonyl, amino(C<sub>1</sub>-C<sub>6</sub>)alkylaminosulfonyl, (C<sub>1</sub>-C<sub>6</sub>)alkylamino(C<sub>1</sub>-C<sub>6</sub>)alkylaminosulfonyl, ((C<sub>1</sub>-C<sub>6</sub>)alkyl)<sub>2</sub>amino(C<sub>1</sub>-C<sub>6</sub>)alkylaminosulfonyl, (C<sub>2</sub>-C<sub>9</sub>)heteroarylaminosulfonyl, ureido(C<sub>1</sub>-C<sub>6</sub>)alkylaminosulfonyl, (C<sub>1</sub>-C<sub>6</sub>)alkylureido(C<sub>1</sub>-C<sub>6</sub>)alkylaminosulfonyl, ((C<sub>1</sub>-C<sub>6</sub>)alkyl)<sub>2</sub>ureido(C<sub>1</sub>-C<sub>6</sub>)alkylaminosulfonyl, (C<sub>1</sub>-C<sub>6</sub>)alkylsulfonylamino(C<sub>1</sub>-C<sub>6</sub>)alkylaminosulfonyl, (C<sub>1</sub>-C<sub>6</sub>)alkoxycarbonylamino(C<sub>1</sub>-C<sub>6</sub>)alkylaminosulfonyl, (C<sub>2</sub>-C<sub>9</sub>)heterocycloalkyloxycarbonylamino(C<sub>1</sub>-C<sub>6</sub>)alkylaminosulfonyl, (C<sub>2</sub>-C<sub>9</sub>)heteroaryloxycarbonylamino(C<sub>1</sub>-C<sub>6</sub>)alkylaminosulfonyl, aminocarbonyl(C<sub>1</sub>-C<sub>6</sub>)alkylaminosulfonyl, cyanoguanidino(C<sub>1</sub>-C<sub>6</sub>)alkylaminosulfonyl, (C<sub>2</sub>-C<sub>9</sub>)heteroaryl(C<sub>1</sub>-C<sub>6</sub>)alkylaminosulfonyl, (C<sub>2</sub>-C<sub>9</sub>)heterocycloalkylaminosulfonyl, halo(C<sub>1</sub>-C<sub>6</sub>)alkylaminocarbonyl, hydroxy(C<sub>1</sub>-C<sub>6</sub>)alkylureido, halo(C<sub>1</sub>-C<sub>6</sub>)alkylsulfonylamino, (C<sub>1</sub>-C<sub>6</sub>)alkoxycarbonyl(C<sub>1</sub>-C<sub>6</sub>)alkylamino(C<sub>1</sub>-C<sub>6</sub>)alkyl, hydroxy(C<sub>1</sub>-C<sub>6</sub>)alkylaminocarbonylamino(C<sub>1</sub>-C<sub>6</sub>)alkyl, halo(C<sub>1</sub>-C<sub>6</sub>)alkylsulfonylamino(C<sub>1</sub>-C<sub>6</sub>)alkyl, aminosulfonyl, (C<sub>1</sub>-C<sub>6</sub>)alkylaminosulfonyl, ((C<sub>1</sub>-C<sub>6</sub>)alkyl)<sub>2</sub>aminosulfonyl, hydroxy(C<sub>1</sub>-C<sub>6</sub>)alkylaminosulfonyl, or (C<sub>1</sub>-C<sub>6</sub>)alkoxy(C<sub>1</sub>-C<sub>6</sub>)alkylaminosulfonyl;
- 25 R<sup>6</sup> and R<sup>7</sup> are each independently halo, halo(C<sub>1</sub>-C<sub>6</sub>)alkyl, (C<sub>1</sub>-C<sub>6</sub>)alkyl, (C<sub>1</sub>-C<sub>6</sub>)alkoxy, trifluoromethyl, trifluoromethoxy, hydroxy, aminocarbonyl, cyano, ureido, (C<sub>1</sub>-C<sub>6</sub>)alkylsulfonylamino, (C<sub>1</sub>-C<sub>6</sub>)alkoxycarbonylamino or glycnamino;
- 30 a is 1, 2, 3, 4 or 5;  
b is 0, 1, 2, 3 or 4;  
c is 1;  
d is 1;  
e is 1;  
j is 1, 2, 3, or 4;  
Y is CH<sub>2</sub>;
- 35 X is C(O); and  
Z is oxygen.



21. (New) A compound of the formula



or the pharmaceutically acceptable salt thereof; wherein

$R^1$  is hydrogen, halo, cyano, nitro, trifluoromethyl, trifluoromethoxy, (C<sub>1</sub>-C<sub>6</sub>)alkyl, hydroxy or (C<sub>1</sub>-C<sub>6</sub>)alkylcarbonyloxy;

$R^2$  and  $R^3$  are each independently selected from (C<sub>1</sub>-C<sub>6</sub>)alkyl, (C<sub>3</sub>-C<sub>8</sub>)cycloalkyl, amino(C<sub>1</sub>-C<sub>6</sub>)alkyl, amino(C<sub>3</sub>-C<sub>8</sub>)cycloalkyl, (C<sub>1</sub>-C<sub>6</sub>)alkylamino(C<sub>1</sub>-C<sub>6</sub>)alkyl, (C<sub>1</sub>-C<sub>6</sub>)alkylamino(C<sub>3</sub>-C<sub>8</sub>)cycloalkyl, hydroxy(C<sub>1</sub>-C<sub>6</sub>)alkyl, (C<sub>1</sub>-C<sub>6</sub>)alkoxycarbonylamino(C<sub>1</sub>-C<sub>6</sub>)alkyl, ureido(C<sub>1</sub>-C<sub>6</sub>)alkyl, (C<sub>1</sub>-C<sub>6</sub>)alkylureido(C<sub>1</sub>-C<sub>6</sub>)alkyl, (C<sub>2</sub>-C<sub>9</sub>)heteroaryl(C<sub>1</sub>-C<sub>6</sub>)alkyl or (C<sub>2</sub>-C<sub>9</sub>)heterocycloalkyl(C<sub>1</sub>-C<sub>6</sub>)alkyl;

$R^4$  is  $(R^5)_f(R^6)_g(C_6-C_{10})$ aryl or  $(R^5)_f(R^7)_h(C_2-C_9)$ heteroaryl wherein f, g and h are independently 1 or 2;

$R^5$  is (C<sub>2</sub>-C<sub>9</sub>)heterocycloalkylcarbonyl, (C<sub>2</sub>-C<sub>9</sub>)heteroarylcarbonyl, (C<sub>2</sub>-C<sub>9</sub>)heteroaryl(C<sub>1</sub>-C<sub>6</sub>)alkylaminocarbonyl, (C<sub>2</sub>-C<sub>9</sub>)heterocycloalkyl(C<sub>1</sub>-C<sub>6</sub>)alkylaminocarbonyl, (C<sub>1</sub>-C<sub>6</sub>)alkylsulfonylamino(C<sub>1</sub>-C<sub>6</sub>)alkylaminocarbonyl, ureido(C<sub>1</sub>-C<sub>6</sub>)alkylaminocarbonyl, (C<sub>1</sub>-C<sub>6</sub>)alkylureido(C<sub>1</sub>-C<sub>6</sub>)alkylaminocarbonyl, ((C<sub>1</sub>-C<sub>6</sub>)alkyl)<sub>2</sub>ureido(C<sub>1</sub>-C<sub>6</sub>)alkylaminocarbonyl, aminosulfonyl(C<sub>1</sub>-C<sub>6</sub>)alkylaminocarbonyl, (C<sub>1</sub>-C<sub>6</sub>)alkylaminosulfonyl(C<sub>1</sub>-C<sub>6</sub>)alkylaminocarbonyl, (C<sub>1</sub>-C<sub>6</sub>)alkylsulfonylamino(C<sub>1</sub>-C<sub>6</sub>)alkylcarbonylamino, cyanoguanidino(C<sub>1</sub>-C<sub>6</sub>)alkylcarbonylamino, (C<sub>1</sub>-C<sub>6</sub>)alkylcyanoguanidino(C<sub>1</sub>-C<sub>6</sub>)alkylcarbonylamino, ((C<sub>1</sub>-C<sub>6</sub>)alkyl)<sub>2</sub>cyanoguanidino(C<sub>1</sub>-C<sub>6</sub>)alkylcarbonylamino, aminocarbonyl(C<sub>1</sub>-C<sub>6</sub>)alkylcarbonylamino, (C<sub>2</sub>-C<sub>9</sub>)heteroaryl(C<sub>1</sub>-C<sub>6</sub>)alkylcarbonylamino, (C<sub>2</sub>-C<sub>9</sub>)heterocycloalkyl(C<sub>1</sub>-C<sub>6</sub>)alkylcarbonylamino, aminosulfonyl(C<sub>1</sub>-C<sub>6</sub>)alkylcarbonylamino, amino(C<sub>1</sub>-C<sub>6</sub>)alkylureido, (C<sub>1</sub>-C<sub>6</sub>)alkylamino(C<sub>1</sub>-C<sub>6</sub>)alkylureido, ((C<sub>1</sub>-C<sub>6</sub>)alkyl)<sub>2</sub>amino(C<sub>1</sub>-C<sub>6</sub>)alkylureido, (C<sub>2</sub>-C<sub>9</sub>)heterocycloalkyl(C<sub>1</sub>-C<sub>6</sub>)alkylureido, (C<sub>2</sub>-C<sub>9</sub>)heteroaryl(C<sub>1</sub>-C<sub>6</sub>)alkylureido, aminosulfonyl(C<sub>1</sub>-C<sub>6</sub>)alkylureido, aminocarbonyl(C<sub>1</sub>-C<sub>6</sub>)alkylureido, (C<sub>1</sub>-C<sub>6</sub>)alkylaminocarbonyl(C<sub>1</sub>-C<sub>6</sub>)alkylureido, ((C<sub>1</sub>-C<sub>6</sub>)alkyl)<sub>2</sub>aminocarbonyl(C<sub>1</sub>-C<sub>6</sub>)alkylureido, acetylamino(C<sub>1</sub>-C<sub>6</sub>)alkylureido, (acetyl)((C<sub>1</sub>-C<sub>6</sub>)alkyl)amino(C<sub>1</sub>-C<sub>6</sub>)alkylureido, amino(C<sub>1</sub>-C<sub>6</sub>)alkylsulfonylamino, (C<sub>1</sub>-C<sub>6</sub>)alkylamino(C<sub>1</sub>-C<sub>6</sub>)alkylsulfonylamino, ((C<sub>1</sub>-C<sub>6</sub>)alkyl)<sub>2</sub>amino(C<sub>1</sub>-C<sub>6</sub>)alkylsulfonylamino, acetylamino(C<sub>1</sub>-C<sub>6</sub>)alkylsulfonylamino, (acetyl)((C<sub>1</sub>-C<sub>6</sub>)alkyl)amino(C<sub>1</sub>-C<sub>6</sub>)alkylsulfonylamino, ureido(C<sub>1</sub>-

5 C<sub>6</sub>)alkylsulfonylamino, (C<sub>1</sub>-C<sub>6</sub>)alkylureido(C<sub>1</sub>-C<sub>6</sub>)alkylsulfonylamino, ((C<sub>1</sub>-  
C<sub>6</sub>)alkyl)<sub>2</sub>ureido(C<sub>1</sub>-C<sub>6</sub>)alkylsulfonylamino, (C<sub>1</sub>-C<sub>6</sub>)alkylsulfonylamino(C<sub>1</sub>-  
C<sub>6</sub>)alkylsulfonylamino, cyanoguanidino(C<sub>1</sub>-C<sub>6</sub>)alkylsulfonylamino, (C<sub>1</sub>-  
C<sub>6</sub>)alkylcyanoguanidino(C<sub>1</sub>-C<sub>6</sub>)alkylsulfonylamino, ((C<sub>1</sub>-C<sub>6</sub>)alkyl)<sub>2</sub>cyanoguanidino(C<sub>1</sub>-  
C<sub>6</sub>)alkylsulfonylamino, aminocarbonyl(C<sub>1</sub>-C<sub>6</sub>)alkylsulfonylamino, (C<sub>1</sub>-  
10 C<sub>6</sub>)alkoxycarbonylamino(C<sub>1</sub>-C<sub>6</sub>)alkylsulfonylamino, aminosulfonylamino, (C<sub>1</sub>-  
C<sub>6</sub>)alkylaminosulfonylamino, ((C<sub>1</sub>-C<sub>6</sub>)alkyl)<sub>2</sub>aminosulfonylamino, aminocarbonyl(C<sub>1</sub>-  
C<sub>6</sub>)alkylamino(C<sub>1</sub>-C<sub>6</sub>)alkylsulfonylamino, (C<sub>2</sub>-C<sub>9</sub>)heterocycloalkyloxycarbonylamino(C<sub>1</sub>-  
C<sub>6</sub>)alkylsulfonylamino, (C<sub>2</sub>-C<sub>9</sub>)heteroaryloxycarbonylamino(C<sub>1</sub>-C<sub>6</sub>)alkylsulfonylamino,  
cyanoguanidino, (C<sub>1</sub>-C<sub>6</sub>)alkylcyanoguanidino, ((C<sub>1</sub>-C<sub>6</sub>)alkyl)<sub>2</sub>cyanoguanidino, (C<sub>2</sub>-  
15 C<sub>9</sub>)heterocycloalkylcyanoguanidino, (C<sub>2</sub>-C<sub>9</sub>)heteroarylcyano-guanidino, (C<sub>2</sub>-  
C<sub>9</sub>)heterocycloalkyl(C<sub>1</sub>-C<sub>6</sub>)alkylcyanoguanidino, (C<sub>2</sub>-C<sub>9</sub>)heteroaryl(C<sub>1</sub>-  
C<sub>6</sub>)alkylcyanoguanidino, amino(C<sub>1</sub>-C<sub>6</sub>)alkylcyanoguanidino, (C<sub>1</sub>-C<sub>6</sub>)alkylamino(C<sub>1</sub>-  
C<sub>6</sub>)alkylcyanoguanidino, ((C<sub>1</sub>-C<sub>6</sub>)alkyl)<sub>2</sub>amino(C<sub>1</sub>-C<sub>6</sub>)alkylcyanoguanidino,  
aminocarbonyl(C<sub>1</sub>-C<sub>6</sub>)alkylcyanoguanidino, (C<sub>1</sub>-C<sub>6</sub>)alkylaminocarbonyl(C<sub>1</sub>-  
20 C<sub>6</sub>)alkylcyanoguanidino, ((C<sub>1</sub>-C<sub>6</sub>)alkyl)<sub>2</sub>aminocarbonyl(C<sub>1</sub>-C<sub>6</sub>)alkylcyanoguanidino,  
aminocarbonyl(C<sub>1</sub>-C<sub>6</sub>)alkylamino, (C<sub>1</sub>-C<sub>6</sub>)alkylsulfonylamino(C<sub>1</sub>-C<sub>6</sub>)alkylamino, (C<sub>1</sub>-  
C<sub>6</sub>)alkoxycarbonylamino(C<sub>1</sub>-C<sub>6</sub>)alkylamino, aminosulfonyl(C<sub>1</sub>-C<sub>6</sub>)alkylamino, (C<sub>2</sub>-  
C<sub>9</sub>)heteroaryl(C<sub>1</sub>-C<sub>6</sub>)alkylamino, acetylamino(C<sub>1</sub>-C<sub>6</sub>)alkylamino, (acetyl)((C<sub>1</sub>-  
C<sub>6</sub>)alkyl)amino(C<sub>1</sub>-C<sub>6</sub>)alkylamino, cyano(C<sub>1</sub>-C<sub>6</sub>)alkylaminoalkyl, aminocarbonyl(C<sub>1</sub>-  
25 C<sub>6</sub>)alkylamino(C<sub>1</sub>-C<sub>6</sub>)alkyl, acetylamino(C<sub>1</sub>-C<sub>6</sub>)alkylamino(C<sub>1</sub>-C<sub>6</sub>)alkyl, (acetyl)((C<sub>1</sub>-  
C<sub>6</sub>)alkyl)amino(C<sub>1</sub>-C<sub>6</sub>)alkylamino(C<sub>1</sub>-C<sub>6</sub>)alkyl, (C<sub>1</sub>-C<sub>6</sub>)alkoxycarbonylamino(C<sub>1</sub>-  
C<sub>6</sub>)alkylamino(C<sub>1</sub>-C<sub>6</sub>)alkyl, (C<sub>2</sub>-C<sub>9</sub>)heterocycloalkyloxycarbonylamino(C<sub>1</sub>-  
C<sub>6</sub>)alkylamino(C<sub>1</sub>-C<sub>6</sub>)alkyl, (C<sub>2</sub>-C<sub>9</sub>)heteroaryloxycarbonylamino(C<sub>1</sub>-C<sub>6</sub>)alkylamino(C<sub>1</sub>-  
C<sub>6</sub>)alkyl, cyanoguanidino(C<sub>1</sub>-C<sub>6</sub>)alkylamino(C<sub>1</sub>-C<sub>6</sub>)alkyl, (C<sub>1</sub>-C<sub>6</sub>)alkylcyanoguanidino(C<sub>1</sub>-  
30 C<sub>6</sub>)alkylamino(C<sub>1</sub>-C<sub>6</sub>)alkyl, ((C<sub>1</sub>-C<sub>6</sub>)alkyl)<sub>2</sub>cyanoguanidino(C<sub>1</sub>-C<sub>6</sub>)alkylamino(C<sub>1</sub>-C<sub>6</sub>)alkyl,  
(C<sub>1</sub>-C<sub>6</sub>)alkylsulfonylamino(C<sub>1</sub>-C<sub>6</sub>)alkylamino(C<sub>1</sub>-C<sub>6</sub>)alkyl, ureido(C<sub>1</sub>-C<sub>6</sub>)alkylamino(C<sub>1</sub>-  
C<sub>6</sub>)alkyl, (C<sub>1</sub>-C<sub>6</sub>)alkylureido(C<sub>1</sub>-C<sub>6</sub>)alkylamino(C<sub>1</sub>-C<sub>6</sub>)alkyl, ((C<sub>1</sub>-C<sub>6</sub>)alkyl)<sub>2</sub>ureido(C<sub>1</sub>-  
C<sub>6</sub>)alkylamino(C<sub>1</sub>-C<sub>6</sub>)alkyl, aminocarbonyloxy(C<sub>1</sub>-C<sub>6</sub>)alkylamino(C<sub>1</sub>-C<sub>6</sub>)alkyl,  
acetylamino(C<sub>1</sub>-C<sub>6</sub>)alkylcarbonylamino(C<sub>1</sub>-C<sub>6</sub>)alkyl, (acetyl)((C<sub>1</sub>-C<sub>6</sub>)alkyl)amino(C<sub>1</sub>-  
35 C<sub>6</sub>)alkylcarbonylamino(C<sub>1</sub>-C<sub>6</sub>)alkyl, aminocarbonyl(C<sub>1</sub>-C<sub>6</sub>)alkylcarbonylamino(C<sub>1</sub>-C<sub>6</sub>)alkyl,  
(C<sub>1</sub>-C<sub>6</sub>)alkylaminocarbonyl(C<sub>1</sub>-C<sub>6</sub>)alkylcarbonylamino(C<sub>1</sub>-C<sub>6</sub>)alkyl, ((C<sub>1</sub>-  
C<sub>6</sub>)alkyl)<sub>2</sub>aminocarbonyl(C<sub>1</sub>-C<sub>6</sub>)alkylcarbonylamino(C<sub>1</sub>-C<sub>6</sub>)alkyl, aminosulfonyl(C<sub>1</sub>-

- 5 C<sub>6</sub>alkylcarbonylamino(C<sub>1</sub>-C<sub>6</sub>)alkyl, (C<sub>2</sub>-C<sub>9</sub>)heterocycloalkyloxycarbonylamino(C<sub>1</sub>-C<sub>6</sub>)alkyl, cyanoguanidino(C<sub>1</sub>-C<sub>6</sub>)alkylcarbonylamino(C<sub>1</sub>-C<sub>6</sub>)alkyl, cyano(C<sub>1</sub>-C<sub>6</sub>)alkylcarbonylamino(C<sub>1</sub>-C<sub>6</sub>)alkyl, wherein R<sup>5</sup> is amino(C<sub>1</sub>-C<sub>6</sub>)alkylaminocarbonylamino(C<sub>1</sub>-C<sub>6</sub>)alkyl, (C<sub>1</sub>-C<sub>6</sub>)alkylamino(C<sub>1</sub>-C<sub>6</sub>)alkylaminocarbonylamino(C<sub>1</sub>-C<sub>6</sub>)alkyl, ((C<sub>1</sub>-C<sub>6</sub>)alkyl)<sub>2</sub>amino(C<sub>1</sub>-C<sub>6</sub>)alkylaminocarbonylamino(C<sub>1</sub>-C<sub>6</sub>)alkyl, aminocarbonyl(C<sub>1</sub>-C<sub>6</sub>)alkylaminocarbonylamino(C<sub>1</sub>-C<sub>6</sub>)alkyl, (C<sub>1</sub>-C<sub>6</sub>)alkylcarbonylamino(C<sub>1</sub>-C<sub>6</sub>)alkylaminocarbonylamino(C<sub>1</sub>-C<sub>6</sub>)alkyl, (C<sub>1</sub>-C<sub>6</sub>)alkylsulfonylamino(C<sub>1</sub>-C<sub>6</sub>)alkylaminocarbonylamino(C<sub>1</sub>-C<sub>6</sub>)alkyl, (C<sub>1</sub>-C<sub>6</sub>)alkoxycarbonylamino(C<sub>1</sub>-C<sub>6</sub>)alkylaminocarbonylamino(C<sub>1</sub>-C<sub>6</sub>)alkyl, (C<sub>2</sub>-C<sub>9</sub>)heterocycloalkyloxycarbonylamino(C<sub>1</sub>-C<sub>6</sub>)alkylaminocarbonylamino(C<sub>1</sub>-C<sub>6</sub>)alkyl, (C<sub>2</sub>-C<sub>9</sub>)heteroaryloxycarbonylamino(C<sub>1</sub>-C<sub>6</sub>)alkylaminocarbonylamino(C<sub>1</sub>-C<sub>6</sub>)alkyl, (C<sub>2</sub>-C<sub>9</sub>)heterocycloalkyl(C<sub>1</sub>-C<sub>6</sub>)alkylaminocarbonylamino(C<sub>1</sub>-C<sub>6</sub>)alkyl, (C<sub>2</sub>-C<sub>9</sub>)heteroaryl(C<sub>1</sub>-C<sub>6</sub>)alkylaminocarbonylamino(C<sub>1</sub>-C<sub>6</sub>)alkyl, ureido(C<sub>1</sub>-C<sub>6</sub>)alkylureido(C<sub>1</sub>-C<sub>6</sub>)alkyl, (C<sub>1</sub>-C<sub>6</sub>)alkylureido(C<sub>1</sub>-C<sub>6</sub>)alkylureido(C<sub>1</sub>-C<sub>6</sub>)alkyl, ((C<sub>1</sub>-C<sub>6</sub>)alkyl)<sub>2</sub>ureido(C<sub>1</sub>-C<sub>6</sub>)alkylureido(C<sub>1</sub>-C<sub>6</sub>)alkyl or cyanoguanidino(C<sub>1</sub>-C<sub>6</sub>)alkylureido(C<sub>1</sub>-C<sub>6</sub>)alkyl, amino(C<sub>1</sub>-C<sub>6</sub>)alkylsulfonylamino(C<sub>1</sub>-C<sub>6</sub>)alkyl, (C<sub>1</sub>-C<sub>6</sub>)alkylamino(C<sub>1</sub>-C<sub>6</sub>)alkylsulfonylamino(C<sub>1</sub>-C<sub>6</sub>)alkyl, ((C<sub>1</sub>-C<sub>6</sub>)alkyl)<sub>2</sub>amino(C<sub>1</sub>-C<sub>6</sub>)alkylsulfonylamino(C<sub>1</sub>-C<sub>6</sub>)alkyl, acetylamino(C<sub>1</sub>-C<sub>6</sub>)alkylsulfonylamino(C<sub>1</sub>-C<sub>6</sub>)alkyl, (acetyl)((C<sub>1</sub>-C<sub>6</sub>)alkyl)amino(C<sub>1</sub>-C<sub>6</sub>)alkylsulfonylamino(C<sub>1</sub>-C<sub>6</sub>)alkyl, ureido(C<sub>1</sub>-C<sub>6</sub>)alkylsulfonylamino(C<sub>1</sub>-C<sub>6</sub>)alkyl, (C<sub>1</sub>-C<sub>6</sub>)alkylureido(C<sub>1</sub>-C<sub>6</sub>)alkylsulfonylamino(C<sub>1</sub>-C<sub>6</sub>)alkyl, ((C<sub>1</sub>-C<sub>6</sub>)alkyl)<sub>2</sub>ureido(C<sub>1</sub>-C<sub>6</sub>)alkylsulfonylamino(C<sub>1</sub>-C<sub>6</sub>)alkyl, (C<sub>1</sub>-C<sub>6</sub>)alkylsulfonylamino(C<sub>1</sub>-C<sub>6</sub>)alkyl, (C<sub>1</sub>-C<sub>6</sub>)alkylsulfonylamino(C<sub>1</sub>-C<sub>6</sub>)alkyl, cyanoguanidino(C<sub>1</sub>-C<sub>6</sub>)alkylsulfonylamino(C<sub>1</sub>-C<sub>6</sub>)alkyl, (C<sub>1</sub>-C<sub>6</sub>)alkyl(cyanoguanidino)(C<sub>1</sub>-C<sub>6</sub>)alkylsulfonylamino(C<sub>1</sub>-C<sub>6</sub>)alkyl, ((C<sub>1</sub>-C<sub>6</sub>)alkyl)<sub>2</sub>(cyanoguanidino)(C<sub>1</sub>-C<sub>6</sub>)alkylsulfonylamino(C<sub>1</sub>-C<sub>6</sub>)alkyl, aminocarbonyl(C<sub>1</sub>-C<sub>6</sub>)alkylsulfonylamino(C<sub>1</sub>-C<sub>6</sub>)alkyl, (C<sub>1</sub>-C<sub>6</sub>)alkoxycarbonylamino(C<sub>1</sub>-C<sub>6</sub>)alkylsulfonylamino(C<sub>1</sub>-C<sub>6</sub>)alkyl, (C<sub>2</sub>-C<sub>9</sub>)heterocycloalkyloxycarbonylamino(C<sub>1</sub>-C<sub>6</sub>)alkylsulfonylamino(C<sub>1</sub>-C<sub>6</sub>)alkyl, (C<sub>2</sub>-C<sub>9</sub>)heteroaryloxycarbonylamino(C<sub>1</sub>-C<sub>6</sub>)alkylsulfonylamino(C<sub>1</sub>-C<sub>6</sub>)alkyl, aminosulfonylamino(C<sub>1</sub>-C<sub>6</sub>)alkyl, (C<sub>1</sub>-C<sub>6</sub>)alkylaminosulfonylamino(C<sub>1</sub>-C<sub>6</sub>)alkyl, ((C<sub>1</sub>-C<sub>6</sub>)alkyl)<sub>2</sub>aminosulfonylamino(C<sub>1</sub>-C<sub>6</sub>)alkyl, cyanoguanidino(C<sub>1</sub>-C<sub>6</sub>)alkyl, (C<sub>1</sub>-C<sub>6</sub>)alkyl(cyanoguanidino)(C<sub>1</sub>-C<sub>6</sub>)alkyl, ((C<sub>1</sub>-C<sub>6</sub>)alkyl)<sub>2</sub>(cyanoguanidino)(C<sub>1</sub>-C<sub>6</sub>)alkyl, (C<sub>2</sub>-C<sub>9</sub>)heterocycloalkyl(cyanoguanidino)(C<sub>1</sub>-C<sub>6</sub>)alkyl, (C<sub>2</sub>-C<sub>9</sub>)heteroaryl(cyanoguanidino)(C<sub>1</sub>-C<sub>6</sub>)alkyl, (C<sub>2</sub>-C<sub>9</sub>)heterocycloalkyl(C<sub>1</sub>-C<sub>6</sub>)alkyl(cyanoguanidino)(C<sub>1</sub>-C<sub>6</sub>)alkyl, (C<sub>2</sub>-C<sub>9</sub>)heteroaryl(C<sub>1</sub>-C<sub>6</sub>)alkyl(cyanoguanidino)(C<sub>1</sub>-C<sub>6</sub>)alkyl



5 C<sub>6</sub>)alkyl, amino(C<sub>1</sub>-C<sub>6</sub>)alkyl(cyanoguanidino)(C<sub>1</sub>-C<sub>6</sub>)alkyl, (C<sub>1</sub>-C<sub>6</sub>)alkylamino(C<sub>1</sub>-  
C<sub>6</sub>)alkyl(cyanoguanidino)(C<sub>1</sub>-C<sub>6</sub>)alkyl, ((C<sub>1</sub>-C<sub>6</sub>)alkyl)<sub>2</sub>amino(C<sub>1</sub>-  
C<sub>6</sub>)alkyl(cyanoguanidino)(C<sub>1</sub>-C<sub>6</sub>)alkyl, aminocarbonyl(C<sub>1</sub>-C<sub>6</sub>)alkyl(cyanoguanidino)(C<sub>1</sub>-  
C<sub>6</sub>)alkyl, (C<sub>1</sub>-C<sub>6</sub>)alkylaminocarbonyl(C<sub>1</sub>-C<sub>6</sub>)alkyl(cyanoguanidino)(C<sub>1</sub>-C<sub>6</sub>)alkyl, ((C<sub>1</sub>-  
C<sub>6</sub>)alkyl)<sub>2</sub>aminocarbonyl(C<sub>1</sub>-C<sub>6</sub>)alkyl(cyanoguanidino)(C<sub>1</sub>-C<sub>6</sub>)alkyl, wherein R<sup>5</sup> is (C<sub>2</sub>-  
10 C<sub>9</sub>)heterocycloalkylsulfonyl, amino(C<sub>1</sub>-C<sub>6</sub>)alkylaminosulfonyl, (C<sub>1</sub>-C<sub>6</sub>)alkylamino(C<sub>1</sub>-  
C<sub>6</sub>)alkylaminosulfonyl, ((C<sub>1</sub>-C<sub>6</sub>)alkyl)<sub>2</sub>amino(C<sub>1</sub>-C<sub>6</sub>)alkylaminosulfonyl, (C<sub>2</sub>-  
C<sub>9</sub>)heteroarylaminosulfonyl, ureido(C<sub>1</sub>-C<sub>6</sub>)alkylaminosulfonyl, (C<sub>1</sub>-C<sub>6</sub>)alkylureido(C<sub>1</sub>-  
C<sub>6</sub>)alkylaminosulfonyl, ((C<sub>1</sub>-C<sub>6</sub>)alkyl)<sub>2</sub>ureido(C<sub>1</sub>-C<sub>6</sub>)alkylaminosulfonyl, (C<sub>1</sub>-  
C<sub>6</sub>)alkylsulfonylamino(C<sub>1</sub>-C<sub>6</sub>)alkylaminosulfonyl, (C<sub>1</sub>-C<sub>6</sub>)alkoxycarbonylamino(C<sub>1</sub>-  
15 C<sub>6</sub>)alkylaminosulfonyl, (C<sub>2</sub>-C<sub>9</sub>)heterocycloalkyloxycarbonylamino(C<sub>1</sub>-  
C<sub>6</sub>)alkylaminosulfonyl, (C<sub>2</sub>-C<sub>9</sub>)heteroaryloxycarbonylamino(C<sub>1</sub>-C<sub>6</sub>)alkylaminosulfonyl,  
aminocarbonyl(C<sub>1</sub>-C<sub>6</sub>)alkylaminosulfonyl, cyanoguanidino(C<sub>1</sub>-C<sub>6</sub>)alkylaminosulfonyl, (C<sub>2</sub>-  
C<sub>9</sub>)heteroaryl(C<sub>1</sub>-C<sub>6</sub>)alkylaminosulfonyl, (C<sub>2</sub>-C<sub>9</sub>)heterocycloalkylaminosulfonyl, halo(C<sub>1</sub>-  
C<sub>6</sub>)alkylaminocarbonyl, hydroxy(C<sub>1</sub>-C<sub>6</sub>)alkylureido, halo(C<sub>1</sub>-C<sub>6</sub>)alkylsulfonylamino, (C<sub>1</sub>-  
20 C<sub>6</sub>)alkoxycarbonyl(C<sub>1</sub>-C<sub>6</sub>)alkylamino(C<sub>1</sub>-C<sub>6</sub>)alkyl, hydroxy(C<sub>1</sub>-  
C<sub>6</sub>)alkylaminocarbonylamino(C<sub>1</sub>-C<sub>6</sub>)alkyl, halo(C<sub>1</sub>-C<sub>6</sub>)alkylsulfonylamino(C<sub>1</sub>-C<sub>6</sub>)alkyl,  
aminosulfonyl, (C<sub>1</sub>-C<sub>6</sub>)alkylaminosulfonyl, ((C<sub>1</sub>-C<sub>6</sub>)alkyl)<sub>2</sub>aminosulfonyl, hydroxy(C<sub>1</sub>-  
C<sub>6</sub>)alkylaminosulfonyl, or (C<sub>1</sub>-C<sub>6</sub>)alkoxy(C<sub>1</sub>-C<sub>6</sub>)alkylaminosulfonyl;

R<sup>6</sup> and R<sup>7</sup> are each independently halo, halo(C<sub>1</sub>-C<sub>6</sub>)alkyl, (C<sub>1</sub>-C<sub>6</sub>)alkyl, (C<sub>1</sub>-C<sub>6</sub>)alkoxy,  
25 trifluoromethyl, trifluoromethoxy, hydroxy, aminocarbonyl, cyano, ureido, (C<sub>1</sub>-  
C<sub>6</sub>)alkylsulfonylamino, (C<sub>1</sub>-C<sub>6</sub>)alkoxycarbonylamino or glycinamino;

a is 1, 2, 3, 4 or 5;

b is 0, 1, 2, 3 or 4;

c is 1;

30 d is 1;

e is 1;

j is 1, 2, 3, or 4;

Y is CH<sub>2</sub>;

X is C(O); and

35 Z is NR<sup>9</sup> wherein R<sup>9</sup> is hydrogen or (C<sub>1</sub>-C<sub>6</sub>)alkyl.

- 5 22. (New) The compound of claim 20 or 21 wherein R<sup>5</sup> is (C<sub>2</sub>-C<sub>9</sub>)heterocycloalkylcarbonyl, (C<sub>2</sub>-C<sub>9</sub>)heteroarylcarbonyl, (C<sub>2</sub>-C<sub>9</sub>)heteroaryl(C<sub>1</sub>-C<sub>6</sub>)alkylaminocarbonyl, (C<sub>2</sub>-C<sub>9</sub>)heterocycloalkyl(C<sub>1</sub>-C<sub>6</sub>)alkylaminocarbonyl, (C<sub>1</sub>-C<sub>6</sub>)alkylsulfonylamino(C<sub>1</sub>-C<sub>6</sub>)alkylaminocarbonyl, ureido(C<sub>1</sub>-C<sub>6</sub>)alkylaminocarbonyl, (C<sub>1</sub>-C<sub>6</sub>)alkylureido(C<sub>1</sub>-C<sub>6</sub>)alkylaminocarbonyl, ((C<sub>1</sub>-C<sub>6</sub>)alkyl)<sub>2</sub>ureido(C<sub>1</sub>-C<sub>6</sub>)alkylaminocarbonyl, aminosulfonyl(C<sub>1</sub>-C<sub>6</sub>)alkylaminocarbonyl or (C<sub>1</sub>-C<sub>6</sub>)alkylaminosulfonyl(C<sub>1</sub>-C<sub>6</sub>)alkylaminocarbonyl.
- 10 23. (New) The compound of claim 20 or 21 wherein R<sup>5</sup> is (C<sub>1</sub>-C<sub>6</sub>)alkylsulfonylamino(C<sub>1</sub>-C<sub>6</sub>)alkylcarbonylamino, cyanoguanidino(C<sub>1</sub>-C<sub>6</sub>)alkylcarbonylamino, (C<sub>1</sub>-C<sub>6</sub>)alkylcyanoguanidino(C<sub>1</sub>-C<sub>6</sub>)alkylcarbonylamino, ((C<sub>1</sub>-C<sub>6</sub>)alkyl)<sub>2</sub>cyanoguanidino(C<sub>1</sub>-C<sub>6</sub>)alkylcarbonylamino, aminocarbonyl(C<sub>1</sub>-C<sub>6</sub>)alkylcarbonylamino, (C<sub>2</sub>-C<sub>9</sub>)heteroaryl(C<sub>1</sub>-C<sub>6</sub>)alkylcarbonylamino, (C<sub>2</sub>-C<sub>9</sub>)heterocycloalkyl(C<sub>1</sub>-C<sub>6</sub>)alkylcarbonylamino, or aminosulfonyl(C<sub>1</sub>-C<sub>6</sub>)alkylcarbonylamino.
- 15 24. (New) The compound of claim 20 or 21 wherein R<sup>5</sup> is amino(C<sub>1</sub>-C<sub>6</sub>)alkylureido, (C<sub>1</sub>-C<sub>6</sub>)alkylamino(C<sub>1</sub>-C<sub>6</sub>)alkylureido, ((C<sub>1</sub>-C<sub>6</sub>)alkyl)<sub>2</sub>amino(C<sub>1</sub>-C<sub>6</sub>)alkylureido, (C<sub>2</sub>-C<sub>9</sub>)heterocycloalkyl(C<sub>1</sub>-C<sub>6</sub>)alkylureido, (C<sub>2</sub>-C<sub>9</sub>)heteroaryl(C<sub>1</sub>-C<sub>6</sub>)alkylureido, aminosulfonyl(C<sub>1</sub>-C<sub>6</sub>)alkylureido, aminocarbonyl(C<sub>1</sub>-C<sub>6</sub>)alkylureido, (C<sub>1</sub>-C<sub>6</sub>)alkylaminocarbonyl(C<sub>1</sub>-C<sub>6</sub>)alkylureido, ((C<sub>1</sub>-C<sub>6</sub>)alkyl)<sub>2</sub>aminocarbonyl(C<sub>1</sub>-C<sub>6</sub>)alkylureido, acetyl(C<sub>1</sub>-C<sub>6</sub>)alkylureido, (acetyl)((C<sub>1</sub>-C<sub>6</sub>)alkyl)amino(C<sub>1</sub>-C<sub>6</sub>)alkylureido.
- 20 25. (New) The compound of claim 20 or 21 wherein R<sup>5</sup> is amino(C<sub>1</sub>-C<sub>6</sub>)alkylsulfonylamino, (C<sub>1</sub>-C<sub>6</sub>)alkylamino(C<sub>1</sub>-C<sub>6</sub>)alkylsulfonylamino, ((C<sub>1</sub>-C<sub>6</sub>)alkyl)<sub>2</sub>amino(C<sub>1</sub>-C<sub>6</sub>)alkylsulfonylamino, acetyl(C<sub>1</sub>-C<sub>6</sub>)alkylsulfonylamino, (acetyl)((C<sub>1</sub>-C<sub>6</sub>)alkyl)amino(C<sub>1</sub>-C<sub>6</sub>)alkylsulfonylamino, ureido(C<sub>1</sub>-C<sub>6</sub>)alkylsulfonylamino, (C<sub>1</sub>-C<sub>6</sub>)alkylureido(C<sub>1</sub>-C<sub>6</sub>)alkylsulfonylamino, ((C<sub>1</sub>-C<sub>6</sub>)alkyl)<sub>2</sub>ureido(C<sub>1</sub>-C<sub>6</sub>)alkylsulfonylamino, (C<sub>1</sub>-C<sub>6</sub>)alkylsulfonylamino(C<sub>1</sub>-C<sub>6</sub>)alkylsulfonylamino, cyanoguanidino(C<sub>1</sub>-C<sub>6</sub>)alkylsulfonylamino, (C<sub>1</sub>-C<sub>6</sub>)alkylcyanoguanidino(C<sub>1</sub>-C<sub>6</sub>)alkylsulfonylamino, ((C<sub>1</sub>-C<sub>6</sub>)alkyl)<sub>2</sub>cyanoguanidino(C<sub>1</sub>-C<sub>6</sub>)alkylsulfonylamino, aminocarbonyl(C<sub>1</sub>-C<sub>6</sub>)alkylsulfonylamino, (C<sub>1</sub>-C<sub>6</sub>)alkoxycarbonylamino(C<sub>1</sub>-C<sub>6</sub>)alkylsulfonylamino, aminosulfonylamino, (C<sub>1</sub>-C<sub>6</sub>)alkylaminosulfonylamino, ((C<sub>1</sub>-C<sub>6</sub>)alkyl)<sub>2</sub>aminosulfonylamino, aminocarbonyl(C<sub>1</sub>-C<sub>6</sub>)alkylamino(C<sub>1</sub>-C<sub>6</sub>)alkylsulfonylamino,
- 25 30 35

5 (C<sub>2</sub>-C<sub>9</sub>)heterocycloalkyloxycarbonylamino(C<sub>1</sub>-C<sub>6</sub>)alkylsulfonylamino or (C<sub>2</sub>-C<sub>9</sub>)heteroaryloxycarbonylamino(C<sub>1</sub>-C<sub>6</sub>)alkylsulfonylamino.

26. (New) The compound of claim 20 or 21 wherein R<sup>5</sup> is cyanoguanidino, (C<sub>1</sub>-C<sub>6</sub>)alkylcyanoguanidino, ((C<sub>1</sub>-C<sub>6</sub>)alkyl)<sub>2</sub>cyanoguanidino, (C<sub>2</sub>-C<sub>9</sub>)heterocycloalkylcyanoguanidino, (C<sub>2</sub>-C<sub>9</sub>)heteroarylcyanoguanidino, (C<sub>2</sub>-C<sub>9</sub>)heterocycloalkyl(C<sub>1</sub>-C<sub>6</sub>)alkylcyanoguanidino, (C<sub>2</sub>-C<sub>9</sub>)heteroaryl(C<sub>1</sub>-C<sub>6</sub>)alkylcyanoguanidino, amino(C<sub>1</sub>-C<sub>6</sub>)alkylcyanoguanidino, (C<sub>1</sub>-C<sub>6</sub>)alkylamino(C<sub>1</sub>-C<sub>6</sub>)alkylcyanoguanidino, ((C<sub>1</sub>-C<sub>6</sub>)alkyl)<sub>2</sub>amino(C<sub>1</sub>-C<sub>6</sub>)alkylcyanoguanidino, aminocarbonyl(C<sub>1</sub>-C<sub>6</sub>)alkylcyanoguanidino, (C<sub>1</sub>-C<sub>6</sub>)alkylaminocarbonyl(C<sub>1</sub>-C<sub>6</sub>)alkylcyanoguanidino or ((C<sub>1</sub>-C<sub>6</sub>)alkyl)<sub>2</sub>aminocarbonyl(C<sub>1</sub>-C<sub>6</sub>)alkylcyanoguanidino.  
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15 wherein R<sup>5</sup> is aminocarbonyl(C<sub>1</sub>-C<sub>6</sub>)alkylamino, (C<sub>1</sub>-C<sub>6</sub>)alkylsulfonylamino(C<sub>1</sub>-C<sub>6</sub>)alkylamino, (C<sub>1</sub>-C<sub>6</sub>)alkoxycarbonylamino(C<sub>1</sub>-C<sub>6</sub>)alkylamino, aminosulfonyl(C<sub>1</sub>-C<sub>6</sub>)alkylamino, (C<sub>2</sub>-C<sub>9</sub>)heteroaryl(C<sub>1</sub>-C<sub>6</sub>)alkylamino, acetylamino(C<sub>1</sub>-C<sub>6</sub>)alkylamino or (acetyl)((C<sub>1</sub>-C<sub>6</sub>)alkyl)amino(C<sub>1</sub>-C<sub>6</sub>)alkylamino.

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27. (New) The compound of claim 20 or 21 wherein R<sup>5</sup> is cyano(C<sub>1</sub>-C<sub>6</sub>)alkylaminoalkyl or aminocarbonyl(C<sub>1</sub>-C<sub>6</sub>)alkylamino(C<sub>1</sub>-C<sub>6</sub>)alkyl.

28. (New) The compound of claim 20 or 21 wherein R<sup>5</sup> is acetylamino(C<sub>1</sub>-C<sub>6</sub>)alkylamino(C<sub>1</sub>-C<sub>6</sub>)alkyl, (acetyl)((C<sub>1</sub>-C<sub>6</sub>)alkyl)amino(C<sub>1</sub>-C<sub>6</sub>)alkylamino(C<sub>1</sub>-C<sub>6</sub>)alkyl, (C<sub>1</sub>-C<sub>6</sub>)alkoxycarbonylamino(C<sub>1</sub>-C<sub>6</sub>)alkylamino(C<sub>1</sub>-C<sub>6</sub>)alkyl, (C<sub>2</sub>-C<sub>9</sub>)heterocycloalkyloxycarbonylamino(C<sub>1</sub>-C<sub>6</sub>)alkylamino(C<sub>1</sub>-C<sub>6</sub>)alkyl, (C<sub>2</sub>-C<sub>9</sub>)heteroaryloxycarbonylamino(C<sub>1</sub>-C<sub>6</sub>)alkylamino(C<sub>1</sub>-C<sub>6</sub>)alkyl, cyanoguanidino(C<sub>1</sub>-C<sub>6</sub>)alkylamino(C<sub>1</sub>-C<sub>6</sub>)alkyl, (C<sub>1</sub>-C<sub>6</sub>)alkylcyanoguanidino(C<sub>1</sub>-C<sub>6</sub>)alkylamino(C<sub>1</sub>-C<sub>6</sub>)alkyl, ((C<sub>1</sub>-C<sub>6</sub>)alkyl)<sub>2</sub>cyanoguanidino(C<sub>1</sub>-C<sub>6</sub>)alkylamino(C<sub>1</sub>-C<sub>6</sub>)alkyl, (C<sub>1</sub>-C<sub>6</sub>)alkylsulfonylamino(C<sub>1</sub>-C<sub>6</sub>)alkylamino(C<sub>1</sub>-C<sub>6</sub>)alkyl, ureido(C<sub>1</sub>-C<sub>6</sub>)alkylamino(C<sub>1</sub>-C<sub>6</sub>)alkyl, (C<sub>1</sub>-C<sub>6</sub>)alkylureido(C<sub>1</sub>-C<sub>6</sub>)alkylamino(C<sub>1</sub>-C<sub>6</sub>)alkyl, ((C<sub>1</sub>-C<sub>6</sub>)alkyl)<sub>2</sub>ureido(C<sub>1</sub>-C<sub>6</sub>)alkylamino(C<sub>1</sub>-C<sub>6</sub>)alkyl or aminocarbonyloxy(C<sub>1</sub>-C<sub>6</sub>)alkylamino(C<sub>1</sub>-C<sub>6</sub>)alkyl.  
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29. (New) The compound of claim 20 or 21 wherein R<sup>5</sup> is acetylamino(C<sub>1</sub>-C<sub>6</sub>)alkylcarbonylamino(C<sub>1</sub>-C<sub>6</sub>)alkyl, (acetyl)((C<sub>1</sub>-C<sub>6</sub>)alkyl)amino(C<sub>1</sub>-C<sub>6</sub>)alkylcarbonylamino(C<sub>1</sub>-C<sub>6</sub>)alkyl, aminocarbonyl(C<sub>1</sub>-C<sub>6</sub>)alkylcarbonylamino(C<sub>1</sub>-C<sub>6</sub>)alkyl,  
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5 (C<sub>1</sub>-C<sub>6</sub>)alkylaminocarbonyl(C<sub>1</sub>-C<sub>6</sub>)alkylcarbonylamino(C<sub>1</sub>-C<sub>6</sub>)alkyl, ((C<sub>1</sub>-C<sub>6</sub>)alkyl)<sub>2</sub>aminocarbonyl(C<sub>1</sub>-C<sub>6</sub>)alkylcarbonylamino(C<sub>1</sub>-C<sub>6</sub>)alkyl, aminosulfonyl(C<sub>1</sub>-C<sub>6</sub>)alkylcarbonylamino(C<sub>1</sub>-C<sub>6</sub>)alkyl, (C<sub>2</sub>-C<sub>9</sub>)heterocycloalkyloxycarbonylamino(C<sub>1</sub>-C<sub>6</sub>)alkyl, cyanoguanidino(C<sub>1</sub>-C<sub>6</sub>)alkylcarbonylamino(C<sub>1</sub>-C<sub>6</sub>)alkyl or cyano(C<sub>1</sub>-C<sub>6</sub>)alkylcarbonylamino(C<sub>1</sub>-C<sub>6</sub>)alkyl.

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30. (New) The compound of claim 20 or 21 wherein R<sup>5</sup> is amino(C<sub>1</sub>-C<sub>6</sub>)alkylaminocarbonylamino(C<sub>1</sub>-C<sub>6</sub>)alkyl, (C<sub>1</sub>-C<sub>6</sub>)alkylamino(C<sub>1</sub>-C<sub>6</sub>)alkylaminocarbonylamino(C<sub>1</sub>-C<sub>6</sub>)alkyl, ((C<sub>1</sub>-C<sub>6</sub>)alkyl)<sub>2</sub>amino(C<sub>1</sub>-C<sub>6</sub>)alkylaminocarbonylamino(C<sub>1</sub>-C<sub>6</sub>)alkyl, aminocarbonyl(C<sub>1</sub>-C<sub>6</sub>)alkylaminocarbonylamino(C<sub>1</sub>-C<sub>6</sub>)alkyl, (C<sub>1</sub>-C<sub>6</sub>)

15 alkylcarbonylamino(C<sub>1</sub>-C<sub>6</sub>)alkylaminocarbonylamino(C<sub>1</sub>-C<sub>6</sub>)alkyl, (C<sub>1</sub>-  
C<sub>6</sub>)alkylsulfonylamino(C<sub>1</sub>-C<sub>6</sub>)alkylaminocarbonylamino(C<sub>1</sub>-C<sub>6</sub>)alkyl, (C<sub>1</sub>-C<sub>6</sub>)alkoxycarbonyl  
amino(C<sub>1</sub>-C<sub>6</sub>)alkylaminocarbonylamino(C<sub>1</sub>-C<sub>6</sub>)alkyl, (C<sub>2</sub>-C<sub>9</sub>)heterocycloalkyloxycarbonyl  
amino(C<sub>1</sub>-C<sub>6</sub>)alkylaminocarbonylamino(C<sub>1</sub>-C<sub>6</sub>)alkyl, (C<sub>2</sub>-  
C<sub>9</sub>)heteroaryloxycarbonylamino(C<sub>1</sub>-C<sub>6</sub>)alkylaminocarbonylamino(C<sub>1</sub>-C<sub>6</sub>)alkyl, (C<sub>2</sub>-  
20 C<sub>9</sub>)heterocycloalkyl(C<sub>1</sub>-C<sub>6</sub>)alkylaminocarbonyl amino(C<sub>1</sub>-C<sub>6</sub>)alkyl, (C<sub>2</sub>-C<sub>9</sub>)heteroaryl(C<sub>1</sub>-  
C<sub>6</sub>)alkylaminocarbonylamino(C<sub>1</sub>-C<sub>6</sub>)alkyl, ureido(C<sub>1</sub>-C<sub>6</sub>)alkylureido(C<sub>1</sub>-C<sub>6</sub>)alkyl, (C<sub>1</sub>-  
C<sub>6</sub>)alkylureido(C<sub>1</sub>-C<sub>6</sub>)alkylureido(C<sub>1</sub>-C<sub>6</sub>)alkyl, ((C<sub>1</sub>-C<sub>6</sub>)alkyl)<sub>2</sub>ureido(C<sub>1</sub>-C<sub>6</sub>)alkylureido(C<sub>1</sub>-  
C<sub>6</sub>)alkyl or cyanoguanidino(C<sub>1</sub>-C<sub>6</sub>)alkylureido(C<sub>1</sub>-C<sub>6</sub>)alkyl.

25 31. (New) The compound of claim 20 or 21 wherein R<sup>5</sup> is amino(C<sub>1</sub>-  
C<sub>6</sub>)alkylsulfonylamino(C<sub>1</sub>-C<sub>6</sub>)alkyl, (C<sub>1</sub>-C<sub>6</sub>)alkylamino(C<sub>1</sub>-C<sub>6</sub>)alkylsulfonylamino(C<sub>1</sub>-  
C<sub>6</sub>)alkyl, ((C<sub>1</sub>-C<sub>6</sub>)alkyl)<sub>2</sub>amino(C<sub>1</sub>-C<sub>6</sub>)alkylsulfonylamino(C<sub>1</sub>-C<sub>6</sub>)alkyl, acetylamino(C<sub>1</sub>-  
C<sub>6</sub>)alkylsulfonylamino(C<sub>1</sub>-C<sub>6</sub>)alkyl, (acetyl)((C<sub>1</sub>-C<sub>6</sub>)alkyl)amino(C<sub>1</sub>-  
C<sub>6</sub>)alkylsulfonylamino(C<sub>1</sub>-C<sub>6</sub>)alkyl, ureido(C<sub>1</sub>-C<sub>6</sub>)alkylsulfonylamino(C<sub>1</sub>-C<sub>6</sub>)alkyl, (C<sub>1</sub>-  
30 C<sub>6</sub>)alkylureido(C<sub>1</sub>-C<sub>6</sub>)alkylsulfonylamino(C<sub>1</sub>-C<sub>6</sub>)alkyl, ((C<sub>1</sub>-C<sub>6</sub>)alkyl)<sub>2</sub>ureido(C<sub>1</sub>-  
C<sub>6</sub>)alkylsulfonylamino(C<sub>1</sub>-C<sub>6</sub>)alkyl, (C<sub>1</sub>-C<sub>6</sub>)alkylsulfonylamino(C<sub>1</sub>-  
C<sub>6</sub>)alkylsulfonylamino(C<sub>1</sub>-C<sub>6</sub>)alkyl, cyanoguanidino(C<sub>1</sub>-C<sub>6</sub>)alkylsulfonylamino(C<sub>1</sub>-C<sub>6</sub>)alkyl,  
(C<sub>1</sub>-C<sub>6</sub>)alkyl(cyanoguanidino)(C<sub>1</sub>-C<sub>6</sub>)alkylsulfonylamino(C<sub>1</sub>-C<sub>6</sub>)alkyl, ((C<sub>1</sub>-  
C<sub>6</sub>)alkyl)<sub>2</sub>(cyanoguanidino)(C<sub>1</sub>-C<sub>6</sub>)alkylsulfonylamino(C<sub>1</sub>-C<sub>6</sub>)alkyl, aminocarbonyl(C<sub>1</sub>-  
35 C<sub>6</sub>)alkylsulfonylamino(C<sub>1</sub>-C<sub>6</sub>)alkyl, (C<sub>1</sub>-C<sub>6</sub>)alkoxycarbonylamino(C<sub>1</sub>-  
C<sub>6</sub>)alkylsulfonylamino(C<sub>1</sub>-C<sub>6</sub>)alkyl, (C<sub>2</sub>-C<sub>9</sub>)heterocycloalkyloxycarbonylamino(C<sub>1</sub>-  
C<sub>6</sub>)alkylsulfonylamino(C<sub>1</sub>-C<sub>6</sub>)alkyl, (C<sub>2</sub>-C<sub>9</sub>)heteroaryloxycarbonylamino(C<sub>1</sub>-



5 C<sub>6</sub>)alkylsulfonylamino(C<sub>1</sub>-C<sub>6</sub>)alkyl, aminosulfonylamino(C<sub>1</sub>-C<sub>6</sub>)alkyl, (C<sub>1</sub>-C<sub>6</sub>)alkylaminosulfonylamino(C<sub>1</sub>-C<sub>6</sub>)alkyl or ((C<sub>1</sub>-C<sub>6</sub>)alkyl)<sub>2</sub>aminosulfonylamino(C<sub>1</sub>-C<sub>6</sub>)alkyl.

32. (New) The compound of claim 20 or 21 wherein R<sup>5</sup> is cyanoguanidino(C<sub>1</sub>-C<sub>6</sub>)alkyl, (C<sub>1</sub>-C<sub>6</sub>)alkyl(cyanoguanidino)(C<sub>1</sub>-C<sub>6</sub>)alkyl, ((C<sub>1</sub>-C<sub>6</sub>)alkyl)<sub>2</sub>(cyanoguanidino)(C<sub>1</sub>-C<sub>6</sub>)alkyl, 10 (C<sub>2</sub>-C<sub>9</sub>)heterocycloalkyl(cyanoguanidino)(C<sub>1</sub>-C<sub>6</sub>)alkyl, (C<sub>2</sub>-C<sub>9</sub>)heteroaryl(cyanoguanidino)(C<sub>1</sub>-C<sub>6</sub>)alkyl, (C<sub>2</sub>-C<sub>9</sub>)heterocycloalkyl(C<sub>1</sub>-C<sub>6</sub>)alkyl(cyanoguanidino)(C<sub>1</sub>-C<sub>6</sub>)alkyl, (C<sub>2</sub>-C<sub>9</sub>)heteroaryl(C<sub>1</sub>-C<sub>6</sub>)alkyl(cyanoguanidino)(C<sub>1</sub>-C<sub>6</sub>)alkyl, amino(C<sub>1</sub>-C<sub>6</sub>)alkyl(cyanoguanidino)(C<sub>1</sub>-C<sub>6</sub>)alkyl, (C<sub>1</sub>-C<sub>6</sub>)alkylamino(C<sub>1</sub>-C<sub>6</sub>)alkyl(cyanoguanidino)(C<sub>1</sub>-C<sub>6</sub>)alkyl, ((C<sub>1</sub>-C<sub>6</sub>)alkyl)<sub>2</sub>amino(C<sub>1</sub>-C<sub>6</sub>)alkyl(cyanoguanidino)(C<sub>1</sub>-C<sub>6</sub>)alkyl, aminocarbonyl(C<sub>1</sub>-C<sub>6</sub>)alkyl(cyanoguanidino)(C<sub>1</sub>-C<sub>6</sub>)alkyl, (C<sub>1</sub>-C<sub>6</sub>)alkylaminocarbonyl(C<sub>1</sub>-C<sub>6</sub>)alkyl(cyanoguanidino)(C<sub>1</sub>-C<sub>6</sub>)alkyl or ((C<sub>1</sub>-C<sub>6</sub>)alkyl)<sub>2</sub>aminocarbonyl(C<sub>1</sub>-C<sub>6</sub>)alkyl(cyanoguanidino)(C<sub>1</sub>-C<sub>6</sub>)alkyl.

33. (New) The compound of claim 20 or 21 wherein R<sup>5</sup> is (C<sub>2</sub>-C<sub>9</sub>)heterocycloalkylsulfonyl, amino(C<sub>1</sub>-C<sub>6</sub>)alkylaminosulfonyl, (C<sub>1</sub>-C<sub>6</sub>)alkylamino(C<sub>1</sub>-C<sub>6</sub>)alkylaminosulfonyl, ((C<sub>1</sub>-C<sub>6</sub>)alkyl)<sub>2</sub>amino(C<sub>1</sub>-C<sub>6</sub>)alkylaminosulfonyl, (C<sub>2</sub>-C<sub>9</sub>)heteroarylaminosulfonyl, ureido(C<sub>1</sub>-C<sub>6</sub>)alkylaminosulfonyl, (C<sub>1</sub>-C<sub>6</sub>)alkylureido(C<sub>1</sub>-C<sub>6</sub>)alkylaminosulfonyl, ((C<sub>1</sub>-C<sub>6</sub>)alkyl)<sub>2</sub>ureido(C<sub>1</sub>-C<sub>6</sub>)alkylaminosulfonyl, (C<sub>1</sub>-C<sub>6</sub>)alkylsulfonylamino(C<sub>1</sub>-C<sub>6</sub>)alkylaminosulfonyl, (C<sub>1</sub>-C<sub>6</sub>)alkoxycarbonylamino(C<sub>1</sub>-C<sub>6</sub>)alkylaminosulfonyl, (C<sub>2</sub>-C<sub>9</sub>)heterocycloalkyloxycarbonylamino(C<sub>1</sub>-C<sub>6</sub>)alkylaminosulfonyl, (C<sub>2</sub>-C<sub>9</sub>)heteroaryloxycarbonylamino(C<sub>1</sub>-C<sub>6</sub>)alkylaminosulfonyl, aminocarbonyl(C<sub>1</sub>-C<sub>6</sub>)alkylaminosulfonyl, cyanoguanidino(C<sub>1</sub>-C<sub>6</sub>)alkylaminosulfonyl, (C<sub>2</sub>-C<sub>9</sub>)heteroaryl(C<sub>1</sub>-C<sub>6</sub>)alkylaminosulfonyl, (C<sub>2</sub>-C<sub>9</sub>)heterocycloalkylaminosulfonyl, Other preferred compounds of formula I include those wherein R<sup>5</sup> is halo(C<sub>1</sub>-C<sub>6</sub>)alkylaminocarbonyl, hydroxy(C<sub>1</sub>-C<sub>6</sub>)alkylureido, halo(C<sub>1</sub>-C<sub>6</sub>)alkylsulfonylamino, (C<sub>1</sub>-C<sub>6</sub>)alkoxycarbonyl(C<sub>1</sub>-C<sub>6</sub>)alkylamino(C<sub>1</sub>-C<sub>6</sub>)alkyl, hydroxy(C<sub>1</sub>-C<sub>6</sub>)alkylaminocarbonylamino(C<sub>1</sub>-C<sub>6</sub>)alkyl, halo(C<sub>1</sub>-C<sub>6</sub>)alkylsulfonylamino(C<sub>1</sub>-C<sub>6</sub>)alkyl, aminosulfonyl, (C<sub>1</sub>-C<sub>6</sub>)alkylaminosulfonyl, ((C<sub>1</sub>-C<sub>6</sub>)alkyl)<sub>2</sub>aminosulfonyl, hydroxy(C<sub>1</sub>-C<sub>6</sub>)alkylaminosulfonyl, and (C<sub>1</sub>-C<sub>6</sub>)alkoxy(C<sub>1</sub>-C<sub>6</sub>)alkylaminosulfonyl.